

Remarks/Arguments

This amendment is made for the purpose of placing the claims in better form for consideration by the Examiner, and entry of this amendment under the provisions of 37 CFR 1.116 is respectfully requested.

The allowance of claim 42 is acknowledged with appreciation.

Claims 30 and 48 have been amended to remove the bases for the objections noted by the Examiner on page 2 of the Office Action.

Reconsideration of the rejection of claims 20, 23-25, 27-30, 34-36, 38, 41, 47 and 48 under 35 U.S.C. 102 based on Dietrich is respectfully requested for the following reasons.

Independent claims 20, 23, 35, 47 and 48 have been amended to specify that the clamp is made of plastics material. This feature is not described in Dietrich, which concerns a metal clamp (see page 1, lines 30-35 and 43). Thus, all claims are believed to be novel over Dietrich.

In addition, regarding Claims 24 and 36, the Examiner has objected that Dietrich discloses tightening of the nut on to the second clamp member to exert an inward force on the prongs, towards the bolt, and that tightening of the nut onto the seat pushes the prongs of the clamp member together and can tighten the prongs around the bolt. However, page 1, lines 55-70, of Dietrich merely describes interfitting corrugations on the proximate surfaces of the nut and lug which lock the parts in fixed relation laterally with respect to each other when the nut is tightened. Thus, the

interfitting corrugations prevent the ears c from being forced apart by the pressure of the nut when the band is tightened.

This feature is further described on page 1, line 98 - page 2, line 7. It is clear from this passage that the interlocking projection and depression only prevent lateral spreading of the ears. Thus applicant's claimed features of exerting an inward force on the prongs, towards the bolt, and pushing the prongs of the clamp member together and tightening the prongs around the bolt are novel over Dietrich.

With regard to Claims 34 and 41, the Examiner has objected that Dietrich discloses projections that extend from the prongs and prevent over-closing of the clamp. However, Dietrich does not describe such projections. In Figures 1 and 2 of Dietrich, a' is a continuation of the band and underlies end a (see column 1, lines 50-52). It does not prevent over-closing. Indeed, there appear to be no components of the Dietrich clamp that correspond to the claimed projections, which are shown, for example, in Figures 3a and 5a of the present application (reference numeral 37). Thus, Claims 34 and 41 have an additional novel feature not disclosed in Dietrich.

Claims 26, 31, 43, 46 and 47 also include a feature not present in Dietrich, namely a pivotal connection between the respective first ends of the first and second clamp members. Dietrich does not describe a clamp having two pivotally engaged members. Rather Dietrich describes a band clamp comprising a single flexible body (see page 1, lines 30-37).

In view of the foregoing, claims 20, 23-25, 27-30, 34-36, 38, 41, 47 and 48 as amended are believed to patentably

distinguish over Dietrich within the meaning of 35 U.S.C. 102 and 35 U.S.C. 103.

Reconsideration of the rejection of claims 23-31, 34-36, 38, 41, 44 and 46 under 35 U.S.C. 102 based on Munley et al is respectfully requested for the following reasons. As mentioned above, independent claims 23, 35, 47 and 48 have been amended to specify that the clamp is made of plastics material. Such a clamp is not described in Munley et al, and therefore the claims are believed to be novel over Munley et al.

In addition, with respect to Claim 23, the Examiner has objected the Munley et al disclose a clamp in which the nut mates directly with a seat integrally formed on the second clamp member. The Examiner has referred to both the nut and the seat with the reference numeral 104, but applicant assumes that part 106 is considered to be the seat. It seems unlikely that the bearing member or saddle washer 106 could be regarded as integral with the second clamp members simply because these parts are held together when the nut has been tightened. Moreover, Claim 23 has been amended to specify that the nut mates directly in contact with a seat integrally formed on the second clamp member. Applicant does not believe that the arrangement of the nut, saddle washer, and clamp member described by Munley et al falls within this definition, and therefore requests that the Examiner's objection be withdrawn.

With reference to Claim 31, the Examiner has objected that Munley et al describe a clamp in which the first and second clamp members are separate but pivotally engaged to each other, as claimed. However, Munley et al describe a double pivot linking the two clamp members rather than the claimed means of pivotal engagement. For example, Munley et

al refer to a hinge assembly 24 which includes a pair of pivot pins 92 (see column 5, lines 62-63). Although applicant believes that the previously specified pivotal engagement of the clamp members is novel over Munley, Claim 31 has been amended to adopt the wording used in Claim 42 for the same feature in order to progress the examination of this application.

With regard to Claims 34 and 41, the Examiner has objected that the claimed projections to prevent over-closing correspond to part 63' described in Munley et al. Applicant believes the Examiner is mistaken because Munley et al describe 63' as "the front surface of the second retainer" (column 6, line 14). Thus, 63' does not indicate any sort of projection, particularly not a projection for preventing over-closing of the clamp. Claims 34 and 41 therefore possess an additional point of novelty over Munley et al.

With regard to Claim 44, this claim previously specified a nut and seat assembly for a clamp made of plastics material. Munley et al do not describe such a nut and seat assembly as it relates to metal clamps (see, for example, column 5, lines 1-10). For the sake of improved clarity, Claim 44 has been amended to specify a nut and seat assembly made of plastics material for a clamp made of plastics material. In light of this amendment, there can be no doubt that the subject matter of Claim 44 is novel and patentable over Munley.

In view of the foregoing, claims 23-31, 34-36, 38, 41, 44 and 46 as amended are believed to patentably distinguish over Munley et al within the meaning of 35 U.S.C. 102 and 35 U.S.C. 103.

Reconsideration of the rejection of claims 32, 33, 39, 40 and 43 under 35 U.S.C. 103 based on Munley et al is respectfully requested for the following reasons. Independent claims 23 and 35 as amended and claim 43 as previously submitted call for the clamp being made of plastics material. Munley et al provide no suggestion that it would be desirable to make a clamp out of plastics material. Moreover, the clamp described in Munley et al is complex, and has a large number of parts. Such a clamp would not be suitable for manufacture using a moulded plastics material. Thus, the skilled person would not consider making a plastic pipe clamp in light of the disclosure of Munley et al.

In addition, Munley et al do not discuss the problem addressed by the present invention, the splaying of the prongs of one clamp member when the nut is tightened. This problem does not arise in the Munley et al clamp because a separate saddle washer is provided between the nut and the second clamp member.

The clamp of the present invention uses a different construction in which the nut, when tightened, directly contacts one of the clamp members. A similar arrangement is known in metal clamps and is shown in Figure 1a of the present application. As plastics materials have different properties to metal, a direct copy of such a clamp in plastics material would suffer from splaying of the prongs when the nut is seated. The present application overcomes this problem by providing the claimed nut and seat arrangement in which the seat mates directly in contact with the nut when it is tightened so as to limit opening or splaying of the prongs. This feature would not have been obvious from the teaching of Munley et al.

In view of the foregoing, claims 33, 40 and 43 as amended are believed to patentably distinguish over Munley et al within the meaning of 35 U.S.C. 103.

Reconsideration of the rejection of claims 32, 33, 39, 40 and 43-45 under 35 U.S.C. 103 based on Dietrich is respectfully requested for the following reasons. Independent claims 23, 35 and 44 as amended and claims 43 and 45 as previously presented call for the clamp being of plastic material.

The clamp described in Dietrich, however, differs considerably from that of the present invention. In particular, the Dietrich clamp is for securing coverings on pipes (page 1, lines 7-10 of Dietrich) rather than for sealing pipe work (page 2, lines 2-3 of the present application); is made of metal, not plastics material; and has a body consisting of a single flexible band, rather than two pivotally engaged clamp members. In light of this, it would not be obvious for the skilled person, in seeking to develop a plastics material alternative to the known metal clamp illustrated in the present application, to look to the teaching of Dietrich, a document published approximately 100 years before the priority date of the present invention. Applicant therefore believes that the subject matter of the amended claims would not have been obvious in light of Dietrich.

Accordingly, claims 33, 40 and 43-45 as amended are believed to patentably distinguish over Dietrich within the meaning of 35 U.S.C. 103.

In response to the Examiner's statement in the first sentence of the paragraph headed "Response to Arguments" on

page 11 of the Office Action, applicant has been unable to find such a concession, either in the last response (Paper No. 6) or in the instant application. To the contrary, applicant does not concede this point. In fact, applicant believes the opposite is true, namely it would not be obvious to make the cited metal clamps in plastic. As is clear from the arguments above, applicant believes that the claimed plastic clamp is inventive over the art cited by the Examiner.

New dependent claims 50 and 51 are added to cover aspects of applicant's invention noted upon further review of the instant application. Basis for these new claims is found in Figure 4b of the specification. The claimed feature links the two arms at the end of the clamp member with which the end of the bolt is engaged. The presence of the cross-member is indicated by the depiction of the end of the bolt with a dotted line, indicating that it is hidden by the cross-member.

Now claim 49, together with amended claim 48, cover the subject matter encompassed by original claim 48.

The amendments presented herein are not believed to raise any new issues. The aspect of the clamp being made of plastics material, amended into claims 20, 23, 35, 44, 46, 47 and 48 was previously called for in various dependent claims. The features of directly in contact and snap-fit relation amended into claims 23, 31 and 35 were present previously in other claims. Accordingly, entry of this amendment under the provisions of 37 CFR 1.116 is respectfully requested.

Favorable action on this application is respectfully requested.

Respectfully submitted,

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